



AW

Fan heaters for hot water



AW

Fan heaters for hot water

The AW fan heaters are used for permanent heating of warehouses, industrial premises, workshops, sports halls, shops and the like. Due to its attractive design with simple, neat lines, the AW series can also be installed in public premises.

AW fan heaters can be supplemented with a mixing section that supplies fresh air, and can then also be used as supply air unit. The AW series is available in four sizes and three different models. All fans are designed for 230V single-phase power supply, which makes the installation very simple. The fans have a low sound level and are reliable in operation.

- Simple single-phase installation
- Low sound level - suitable for most environments
- Air deflector directs the air vertically
- Inspection cover for cleaning the fan and coil
- Can be connected to ducting by means of a recirculated air section (not the AW 11)

The ball-bearing mounted fan with overheating protection has a low sound level and offers reliable operation. For supplying fresh air, the AW series can be equipped with a mixing section, which makes it into an excellent supply air unit.



Installation

The AW can be wall mounted or suspended from the ceiling for blowing the air downwards. It can also be mounted horizontally.

The AW can also be connected to ducting by means of a recirculated air section (AWR). By supplementing it with a mixing section (AWB), the AW can also serve as a supply air unit.

Design

Casing made of galvanized sheet steel and painted white. Coils have copper tubes and aluminum fins.

Approvals

The fan heaters are manufactured in conformance with:
 LVD Directive: EN 60355-1, EN 60335-2-30 and EN 50366
 EMC Directive: EN 61000-6-1 and EN 61000-6-3
 EMF Directive: EN 50366



Overview of range/technical data

Type		AW11	AW21	AW41	AW61
Power supply		230 V~	230 V~	230 V~	230 V~
Current	max.	0,7 A	0,7 A	0,9 A	1,2 A
Air flow rate, m ³ /h ¹⁾	low speed	550	1300	1950	2750
	intermediate speed	850	2000	2600	3750
	high speed	1100	2600	3900	5500
Sound level, dBA ²⁾	low speed	41	41	44	48
	intermediate speed	51	52	55	57
	high speed	56	56	62	64
Dimensions, mm	width	460	610	720	870
	height	380	530	630	780
	overall depth	320	320	400	400
Connecting water pipes	mm Ø	22	22	28	28
Weight	kg	15	23	32	44
Degree of protection		IP 43	IP 44	IP 44	IP 44
Max. operating water temp., AW-a and AW-af		100°C	100°C	100°C	100°C
Max. operating water temp., AW-s		150°C	150°C	150°C	150°C
Max. operating water press.		10 bar	10 bar	10 bar	10 bar

1) The air flow rate with mixing section and filter or recirculated air section and filter is around 20 % lower than the specified data for free discharge fans.

2) The sound level has been measured at a distance of 5 metres in front of the AW.

Type AW-s

- Delivered without automatic control equipment. External control components available as accessories.
- Three fan speeds as standard. The speed can be controlled by means of selector switch AWC, Ecolux or can be selected on installation.
- The AW-s can also be controlled in combination with overhead-mounted type CAW fan heaters.
- A maximum of four AW-s units can be slave-controlled by one AW-a. Slave-controlled AW-s fan heaters are supplemented with valves and valve motors.

Type AW-a

- Supplied with built-in automatic control equipment for fan and water control, complete with valve *) and actuator.
- The AW-a is supplemented with an external room sensor and setpoint adjuster.
- Automatic control of fan speed in three steps to suit the heat demand. This ensures a low sound level and reduces fouling of the coil and fan. When there is no heat demand, the fan and water flow are stopped, which saves energy.
- An AW-a can carry out slave control of a maximum of four AW-s fan heaters

*) Valve size	Kvs
AW 11a	5,0
AW 21a	5,0
AW 41a	8,0
AW 61a	8,0

Type AW-af

- Used in installations in which there is risk of freezing, e.g. when installed with a mixing section or in cold areas.
- Automatic supply of heat during stoppage and anti-freeze protection with alarm. When the freezing alarm is initiated the mixing section will be closed and the exhaust air fan, if any, will be stopped.
- The AW-af operates at a fan speed that is preselected on installation, and the fan motor runs continuously. The valve and actuator supplied carry out fine adjustment of the temperature.
- The AW-af should be supplemented with a room sensor. Setpoint adjustment can be carried out on the built-in regulator or externally on a TG-R430 (see sensors).
- The AW-af controls the room temperature and operates with a minimum supply air temperature. The supply air temperature sensor is factory-fitted.
- In order to optimize the anti-freeze control, we recommend that the AW-af should be installed in a secondary circuit with circulation pump and check valve. These components are not included.

The AW 11 is not produced in an -af version.

Capacity of AW 11

Water temp.		in/out 90°C/70°C				in/out 80°C/60°C				in/out 60°C/40°C				in/out 55°C/45°C			
Air flow	Inlet air temp.	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop
m³/h	°C	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa
1100	-10	17,3	31,9	0,21	8	15,1	26,5	0,18	6	10,6	15,6	0,13	4	11,4	17,6	0,27	14
850	-10	14,6	35,8	0,18	6	12,7	30,0	0,16	5	8,9	17,8	0,11	3	9,6	20,1	0,23	11
550	-10	10,9	42,7	0,13	4	9,5	36,1	0,12	3	6,4	20,8	0,08	2	7,2	24,7	0,17	6
1100	±0	15,1	38,0	0,19	6	12,9	32,4	0,16	5	8,2	20,6	0,10	2	9,3	23,3	0,22	10
850	±0	12,7	41,5	0,16	5	10,9	35,5	0,13	4	6,7	21,9	0,08	2	7,8	25,4	0,19	7
550	±0	9,5	47,7	0,12	3	8,1	40,9	0,10	2	4,9	24,6	0,06	1	5,8	29,3	0,14	4
1100	+15	11,9	46,5	0,15	4	9,7	40,8	0,12	3	4,5	26,9	0,05	1	6,2	31,3	0,15	5
850	+15	10,0	49,4	0,12	3	8,2	43,3	0,10	2	3,8	28,1	0,05	1	5,2	32,8	0,13	4
550	+15	7,5	54,6	0,09	2	6,1	47,3	0,07	1	3,0	30,7	0,04	< 0,5	3,8	34,9	0,09	2

Capacity of AW 21

Water temp.		in/out 90°C/70°C				in/out 80°C/60°C				in/out 60°C/40°C				in/out 55°C/45°C			
Air flow	Inlet air temp.	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop
m³/h	°C	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa
2600	-10	39,9	30,9	0,49	15	34,9	25,8	0,43	12	24,8	15,4	0,30	7	26,3	17,0	0,63	26
2000	-10	33,6	34,8	0,41	11	29,4	29,2	0,36	9	21,0	17,9	0,25	5	22,2	19,5	0,53	20
1300	-10	22,2	41,6	0,31	7	22,1	35,3	0,27	5	15,8	22,3	0,19	3	16,6	24,0	0,40	12
2600	±0	34,9	37,1	0,43	12	29,9	31,9	0,37	9	19,9	21,2	0,24	5	24,4	22,8	0,51	18
2000	±0	29,4	40,6	0,36	9	25,2	34,9	0,31	7	16,9	23,4	0,20	4	18,1	25,0	0,43	14
1300	±0	22,0	46,8	0,30	5	18,9	40,3	0,23	4	12,2	26,0	0,15	2	13,5	28,8	0,33	8
2600	+15	27,5	45,9	0,34	8	22,7	40,5	0,28	6	11,9	28,4	0,14	2	14,4	31,1	0,35	9
2000	+15	23,2	48,9	0,28	6	19,1	42,9	0,23	4	9,7	29,1	0,12	1	12,1	32,7	0,29	7
1300	+15	17,3	53,9	0,21	3	14,4	47,2	0,18	3	7,0	30,8	0,08	1	9,1	35,4	0,21	4

Capacity of AW 41

Water temp.		in/out 90°C/70°C				in/out 80°C/60°C				in/out 60°C/40°C				in/out 55°C/45°C			
Air flow	Inlet air temp.	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop
m³/h	°C	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa
3900	-10	59,4	30,6	0,73	16	52,0	25,6	0,63	13	37,0	15,3	0,45	8	39,2	16,8	0,95	28
2600	-10	45,6	36,7	0,56	10	39,9	31,0	0,49	8	28,5	19,3	0,34	5	30,0	20,8	0,73	18
1950	-10	37,5	41,3	0,46	7	28,2	40,1	0,34	4	23,6	22,3	0,29	3	24,7	23,8	0,60	13
3900	±0	52,0	36,9	0,63	12	44,6	31,7	0,54	10	29,8	21,2	0,36	5	32,0	22,7	0,77	20
2600	±0	39,8	42,4	0,49	8	34,3	36,5	0,42	6	23,0	24,5	0,28	3	24,5	26,1	0,59	12
1950	±0	32,8	46,5	0,40	6	28,2	40,1	0,34	4	18,5	26,2	0,22	2	20,2	28,6	0,49	9
3900	+15	41,1	45,8	0,50	8	33,9	40,4	0,41	6	18,3	28,7	0,22	2	21,4	31,0	0,52	10
2600	+15	31,5	50,3	0,39	5	26,0	44,2	0,32	4	13,2	29,8	0,16	1	16,4	33,5	0,40	6
1950	+15	25,9	53,7	0,32	4	24,4	47,1	0,26	3	10,5	30,8	0,13	1	13,5	35,3	0,33	4

Capacity of AW 61

Water temp.		in/out 90°C/70°C				in/out 80°C/60°C				in/out 60°C/40°C				in/out 55°C/45°C			
Air flow	Inlet air temp.	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop	Output	Outlet air temp.	Water flow	Water press. drop
m³/h	°C	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa	kW	°C	l/s	kPa
5500	-10	87,7	32,5	1,08	17	76,9	27,3	0,93	14	55,0	16,7	0,66	8	57,9	18,1	1,40	31
3750	-10	68,1	38,4	0,84	11	59,8	32,5	0,73	9	42,9	20,5	0,51	5	44,9	21,9	1,08	20
2750	-10	55,1	43,4	0,08	8	48,4	36,9	0,59	6	34,9	23,9	0,42	4	36,3	25,2	0,88	14
5500	±0	76,2	38,6	0,94	13	66,4	33,2	0,81	11	44,4	22,4	0,54	6	47,3	23,8	1,14	22
3750	±0	59,5	43,9	0,73	9	51,3	37,9	0,63	7	34,7	25,6	0,42	4	36,6	27,0	0,88	14
2750	±0	48,1	48,4	0,59	6	41,6	41,8	0,51	5	27,7	27,8	0,33	3	29,6	29,8	0,72	10
5500	+15	60,7	47,2	0,75	9	50,2	41,7	0,61	7	28,1	29,9	0,34	3	31,8	31,9	0,77	11
3750	+15	47,1	51,6	0,58	6	39,0	45,4	0,48	4	20,5	30,9	0,25	1	24,7	34,2	0,60	7
2750	+15	38,0	55,4	0,47	4	31,6	48,6	0,39	3	15,9	31,9	0,19	1	20,0	36,2	0,48	5

Accessories

Speed selector switch AWC

Can control up to 5 AW-s units.

1 = low speed

2 = intermediate speed

3 = high speed

Degree of protection IP 65



Room thermostat TI-N

Can control three AW-s units.

Range: 5 - 30°C

Degree of protection IP 30



Motor and valve AWTV

Used together with thermostat TI-N, SR 121/1 or Ecolux.

Can also be used for the AW-s if this is controlled by an AW-a.

Max. 100°C, 10 bar

Degree of protection IP 43



Thermostat SR121/1

Can control three AW-s units.

Range: 0 - 40°C

Degree of protection IP 54



Valve type	Kvs
AWTV 11	5,0
AWTV 21	5,0
AWTV 41	8,0
AWTV 61	8,0

Ecolux thermostat/fan speed selector switch

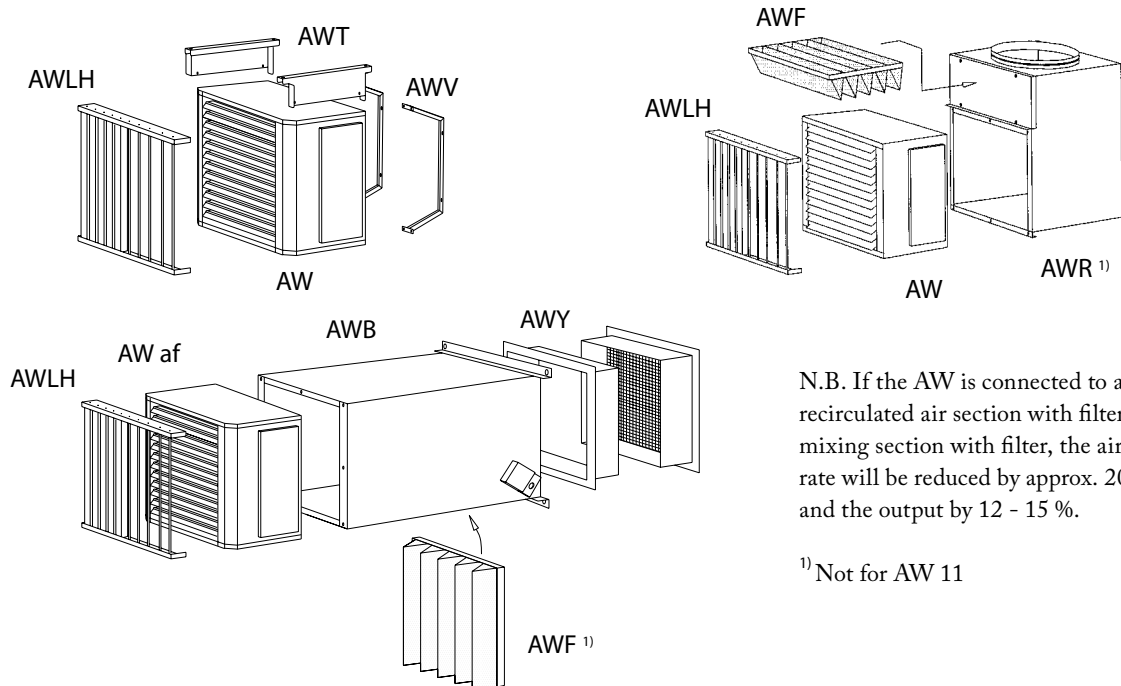
Can control up to three AW-s units.

Range: 5 - 30°C

Degree of protection IP 20



Combination possibilities and accessories



N.B. If the AW is connected to a recirculated air section with filter or mixing section with filter, the air flow rate will be reduced by approx. 20 % and the output by 12 - 15 %.

¹⁾ Not for AW 11

Recirculated air section AWR

For connection to ducting upwards or downwards.
Maximum pressure drop in the connected duct 15 Pa (corresponds to around 10 metres of straight duct).

Can be equipped with AWF filter.
The AWR is not available for the AW 11.

Connection diameters:

AWR 21 = Ø 400 mm

AWR 41 och 61 = Ø 500 mm



Filter section AWK

For filtering the recirculated air to the AW.

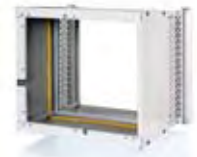
Overall lengths:

AWK 21 = 550 mm

AWK 41 = 600 mm

AWK 61 = 600 mm

(Not for the AW 11)



Filter AWF

Pleated bag filter of class G85 for the AWK, AWR and AWB. The large filter area ensures long intervals between filter changes. The filter reduces fouling of the fan and coil.



Mixing section AWB

When equipped with the AWB, the AW serves as a supply air unit and supplies the premises with heated fresh air.

The AWB is provided with anti-condensation insulation. The mixing damper is opened automatically by a damper motor.



The AWB 21, AWB 41 and AWB 61 can be equipped with type AWF filter (not the AWB 11).

Overall lengths:

AWB 11 = 430 mm

AWB 21 = 880 mm

AWB 41 = 980 mm

AWB 61 = 1105 mm

Air deflector AWLH

Directs the air laterally.



Outer wall grille AWY

Supplied complete with telescopic wall lead-through that fits directly onto the AWB.

Dimensions of wall opening:

Width x Height (mm)

AWY 11 = 355 x 355

AWY 21 = 495 x 495

AWY 41 = 600 x 600

AWY 61 = 735 x 735



Wall bracket AWW

Wall brackets are supplied as accessories.
 Overall depth:
 AWW 11 and AW 21 = 205 mm
 AWW 41 and AW 61 = 265 mm



Hanger brackets AWT

Overhead brackets are supplied as accessories.
 Distance between ceiling and the AW:
 150 mm



Damper motor LF 230

For the AWB 11. Spring-loaded to close on loss of power supply.
 230 V AC
 Degree of protection IP 54



Damper motor AF 230

For the AWB 21, AWB 41 and AWB 61.
 Spring-loaded to close on loss of power supply.
 230 V AC
 Degree of protection IP 54



Room sensor TG-R430

With setpoint adjustment
 For the AW-a and AW-af
 Range: 0 - 30°C
 Degree of protection IP 30



Room sensor TG-R630

For the AW-a and AW-af
 Range: 0 - 30°C
 Degree of protection IP 65
 Supplemented with TG-R430 for setpoint adjustment.



Room sensor TG-R530

For the AW-a and AW-af
 Range: 0 - 30°C
 Degree of protection IP 30
 Supplemented with TG-R430 for setpoint adjustment.



Operating selector switch AWD

For the AWD-af.
 0 = closed
 1 = circulation heating
 2 = ventilation
 Degree of protection IP 65

